

A Review of Body Image Disturbance in Binge Eating Disorder

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ABSTRACT

This paper mainly reviews the related research of body image disorder and binge eating disorder in recent ten years, examines the effect of body image disturbance (BID) in binge eating disorder (BED). BED is characterized by binge-eating repeatedly occurs and last a week for three months, at the same time uncontrolled eating in behavior term. While BID is when an individual is dissatisfied, uncomfortable, or embarrassed with his or her physical appearance and urgently and endlessly takes steps to change it. Moreover, based on the literature review, influencing factors of BID are summarized, which include body dissatisfaction, overconcern with weight and shape, perceptual component, and behavioural component. Also, feeling guilty, stressed, or disgusted in the mental aspect. Then treatment methods of body image disturbance and binge eating disorder are generalized, covering body perception therapy, VREDIM therapy, Mirror exposure, and Cognitive Behavioural Therapy. In conclusion, the result of this review indicates that there is a close relationship between BID and BED, but further investigation is still needed.

Keywords: *body image disturbance; binge eating disorder; body dissatisfaction; perceptual component; behaviour component.*

1. INTRODUCTION

Body image disturbance can have a great influence on thoughts, behaviours, and feelings [1]. And it causes the change in personal perception, self-esteem, and identity of the subjects [2]. Due to the emphasis on physical perfection among society, the overwhelming atmosphere of pursuing perfect body shapes, driving more and more people to transform their appearances. Body image disturbances scope patients from relative benign discontent and turn to the obsession on fixing some specific physical feature to perfection [2]. Main disturbances can also be found in diet disorders and other delusional situations of the psychotic spectrum [3]. The symptoms are commonly seen as disorders in constructing affective, behavioural, cognitive, and perceptual functions [4]. Body image disturbance is functional in causing pathogenesis and maintaining BN

[5]. Especially, patients with eating disorders normally have distorted mental pictures of normal appearance [6].

Studies have examined the association between BED and BID [7]. According to the Diagnostic and Statistical Manual of Mental Disorders, binge eating disorder is one of the feeding and eating disorders that impair the physical and mental health of the individual [8]. Based on diagnostic criteria for the American Psychiatric Association, the most basic symptom of BED binge-eating repeatedly occurs at least once a week for three months [8]. The second is uncontrolled eating, which is manifested by eating more food than others at the same time or eating lots of food when not hungry [8]. The most important thing is that BED would feel guilty, stressed, or generate a feeling of disgust with oneself after binge eating [8]. However, unlike bulimia nervosa, BED is not compensated by vomiting or excessive exercise. At the same time, BED can also lead to more comorbidities. For

example, physically, the most immediate result is obesity. Previous research has demonstrated that 30 to 40% of patients with BED being overweight [9,10]. From the psychological aspect, it would bring bipolar disorder, depression disorder, anxiety disorder, and so on [8].

With social media becoming increasingly popular, more and more people post pictures of their perfect figures online. This leads to an increasing number of people not being satisfied with their own bodies and thinking that they are too fat. People choose to lose weight Even if their weights are in the standard interval, and an increasing number of people have BID as a consequence [11]. A paper says that high levels of concern over shape and weight (i.e., a disturbance in body image's cognitive and affective components) form the core psychopathology of eating disorders [12]. Body image disturbance is one of the causes of binge eating disorder because full cognitive behavioural treatment (CBT) addressing body image disturbance for binge eating disorder was found to significantly more improvement of the eating disorder symptoms at the end of treatment [13]. This review paper will talk about 4 main symptoms of BID and 4 ways to help patients decline this psychological illness.

2. BODY IMAGE DISTURBANCE

2.1. Body Dissatisfaction

Multiple studies have examined the evaluative aspect of a disturbed body image in BED. One part of this aspect is body dissatisfaction. Body dissatisfaction refers to the cognitive, affective, or attitudinal nature of negative body image, which is often examined by the Body Dissatisfaction subscale of the Eating Disorder Inventory [14]. Thin ideal internalization is thought to directly foster body dissatisfaction because this ideal is virtually unattainable for most females (Thompson et al., 1999). Specifically, the body dissatisfaction that is thought to result from thin-ideal internalization theoretically promotes dieting and negative affect, increasing the risk for the onset of bulimic symptoms [15]. Body dissatisfaction is also influenced by personal, interpersonal, cultural, and ethnic variables, is a significant risk factor for ED, and is a prodrome of the BID. BID is also related to unpleasant emotions such as shame, disgust, anxiety, and experiential avoidance behaviours [16]. Body dissatisfaction putatively leads to dieting because of the common belief that this is an effective weight-control technique. Body dissatisfaction may also foster negative effects because appearance is a central evaluative dimension for women in our culture [17].

2.2. Overconcern with Weight and Shape

The overconcern with or overvaluation of weight and

shape is another aspect of the evaluative facet of body image disturbance. It not only incorporates dissatisfaction with one's body but also emphasizes cognitions and emotions regarding one's own weight and figure and their influence on self-esteem and self-worth [18]. It is mostly assessed using the subscales Shape concern and Weight concern from the Eating Disorder Examination and the Eating Disorder Examination Questionnaire, respectively [19]. Several research suggests that shape and weight overvaluation is a useful diagnostic specifier in BED.

Among their comparison between participants with BED and participants with non-eating disordered psychiatric disorders, the overvaluation group had significantly greater levels of eating disorder psychopathology and poorer psychological functioning (higher depression and lower self-esteem) than the non-overvaluation group. BED patients with threshold overvaluation exhibited poorer psychosocial functioning than those with subthreshold overvaluation, as well as participants with other psychiatric disorders [20-22]. Similarly, another study conducted by Jake Linardon (using interview versus self-report questionnaire) also highlights the importance of addressing shape and weight over-evaluation during treatment. It supports the idea of using shape and weight over-evaluation as a severity specifier for binge eating disorder [23].

Furthermore, research suggests that overconcern with weight and shape be further investigated as a diagnostic feature of BED and that emotional eating is associated with BED but not obesity. Individuals with BED reported a greater tendency to eat in response to negative mood states than no eating disorder subjects and low weight eating disorder not otherwise specified (EDNOS) subjects, but not high weight EDNOS subjects. The weight did not influence self-reported weight and shape concerns. Individuals with BED expressed greater concern for weight and shape than non-eating disordered participants [24].

2.3. Perceptual Component

The definition of the perceptual component in BID is how these people think about his or her own body [25]. A paper indicates that patients with AN and BN tend to overestimate their own body parts, while healthy people do not [26]. A study conducted by Schneider and his colleagues examined female teenagers with both AN and BN and a healthy normal female. The study aimed to assess the body size estimation in normal females and females with an eating disorder [27]. Those participants were asked to use a string to show the perceived circumference from the arm, waist to thigh. Next, the length of the string was measured and divided by the actual size and multiplied by 100. Clearly, the results significantly showed that the normal female was mostly accurate with an overestimation of the body parts than the

female with AN or BN. In contrast, those females who reported having eating disorders overestimated their body parts in a much higher percentage [27].

Another prior study also showed that people with BID have body-related attentional biases [28]. This study included two groups of participants, healthy overweight female control group and female with BID group, and they were required to look at a string of pictures with body parts of their own. Both groups showed an attentional bias to the self-defined unattractive body parts. However, participants with BID looked specifically longer and more frequently on those pictures than the control group. These results illustrate that people with BID have a specific attentional bias to the body parts they consider as dissatisfied [28].

2.4. Behaviour Component

The behavioural component consists of body-related checking and avoidance behaviour [29]. Body checking is theorized to reinforce distorted assumptions about changes in weight and shape, thereby exacerbating the perceived failure to control weight and shape [30]. For example, BID patients frequently weigh themselves or pinch their body parts. Body avoidance denotes the opposite, such as avoiding tight-fitting clothing or making attempts to avoid seeing oneself in the mirror and avoiding activities with an enhanced focus on the body such as swimming, dancing, etc. [29, 31]. A study reported that body checking and avoidance were both positively and significantly correlated with over-evaluation of weight and shape [31]. Regarding the behavioural component of body image disturbance, it was found that participants with BED reported more body-related avoidance and checking behaviour in comparison to obese participants without BED [29]. Understanding the behavioural component allows for better formulation of interventions for body image disorders.

3. TREATMENT

3.1. Body Perception Therapy

According to the case-control efficacy study of body perception treatment (BPT), BPT is a specific body-rehabilitation treatment for BID (body image disturbance). BPT is dedicated to a perceptive component of BID and further on interoceptive, proprioceptive, and tactile self-perception [32]. The protocol of Body perception treatment split patients into two groups. They are “body perception” (intervention of 90 min session) and “body schema” (intervention of 60 min session), respectively [33]. “Body schema” focuses on interoceptive and proprioceptive perception [33]. Different parts of the body in actions and subject to muscle relaxation and contraction are aim to be aware

with [33]. “The body perception” guides patients’ awareness of their body misperception and body sensation [34]. Behavioral and cognitive perspectives will be assessed and examined more deeply [33].

3.2. VREDIM Therapy

Furthermore, VR technologies had been used in the therapy of treating. VREDIM (the improved version of immersive virtual environment) was used in obvious diverse studies on clinical nonclinical experimental subjects, provided with good healing experiences due to privacy [35]. As for the initial 3D therapy, the aim is to investigate any stimuli which elicit abnormal eating behavior. Particularly supervising the requirement of patients concerns about body weight, shape and eating conditions, and food choices. The temptation of the test normally responds with prevention protocol [36]. By the end of the therapy, patients would be asked miracle questions, i.e., What would it be like without complaints in patients’ lives. Through answering the question, patients are then constructed the answer of their personal solution, which guides the therapy process [37]. Patients are likely to have self-awareness and gain a personal need to do things to create change and acquire a greater sense of personal efficacy [38]. It was proved that by the results that VREDIM could reduce binge frequency in the short term and be more effective on the overall psychological states of the patients.

3.3. Mirror Exposure

A prior study indicated that people with BID look at themselves differently in the mirror than normal people [39]. An experiment recruited 45 females to see if mirror exposure is effective in treating BID. The participants were asked to stand in front of a 3-way mirror, and they were required to describe themselves from head to toe in a very detailed way [40]. Meanwhile, participants were told not to use unkind words to describe their body parts. After describing, they were debriefed about their experience, including their distress during the exposure and how the experience differed from how they see themselves in their daily lives. Next, participants were asked to wear other clothes in the next session, such as sleeveless shirts or shorts [40].

The results clearly indicated that mirror exposure therapy participants reported less overall concern about their shape and weight after the treatment. Moreover, there was a significant decrease in body dissatisfaction in participants. Patients who have BED also showed a sharp decline in dieting action. Furthermore, after receiving mirror exposure, participants reported higher self-esteem. All these positive results lasted for 1 month follow-up after the therapy [40].

3.4. Cognitive Behavioral Therapy

Cognitive Behavioral Therapy (CBT) is the most widely investigated treatment for BED which has emerged as the treatment of choice and has become the gold standard to which other treatments are compared. CBT is a semi-structured and problem-oriented therapy. It is concerned mainly with the patients' present and future rather than with their past. The focus is on the factors and processes that maintain the eating problem rather than on those that operated earlier in its evolution [41].

McElroy summarized that CBT shows more substantial effectiveness among the other 12 most-studied treatments in BED. CBT could decrease binge eating over the short and long term, more effective than fluoxetine [42]. Another study compared cognitive-behavioral therapy with a body exposure component (CBT-E) and CBT with a cognitive restructuring component focused on body image (CBT-C). At posttreatment and at 4-month follow-up, the experiment found that both CBT-E and CBT-C produced substantial and stable improvements in the specific and general eating disorder psychopathology, suggesting that both treatment components are equally effective in treating BED [43].

4. CONCLUSION

The findings of this study can be understood as the investigation into the link between body image disturbance and binge eating disorder. The paper provides a detailed description of possible symptoms that patients with BID and BED have and lists the current therapies used in the scientific and medical fields as treatments for those two diseases. We found body perception therapy, VREDIM therapy; Mirror Exposure; Cognitive Behavioural Therapy.

Overall, the collected information is seen to be mainly useful in medical fields and might provide a deeper understanding for Medical Research and Development personnel, and perhaps offer some understandings to people who are not familiar with these diseases. However, apparently, the treatments listing above might be unable to be up to date with the latest supportive technologies. As a result, future investigations should be devoted to developing any potential latest treatments that involve new technologies.

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